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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,587	04/26/2001	Raymond A. Schoenfelder	7432.122US11	8735

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EXAMINER

LUM, LEE S

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,587

Applicant(s)

SCHOENFELDER, RAYMOND A.

Examiner

Ms. Lee S. Lum

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Election filed 9/20/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 27 and 50-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12-26 and 28-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 5, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of Claims 1-7, 12-26 and 28-49 in Paper No. 8 (filed 9/20/02) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 8-11, 27 and 50-55 are withdrawn as non-elected.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32, 33 and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 depends from Claim 33.

In Claim 36, line 5, "gar" was probably meant to be "gear".

3. The following Claims are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims of copending Application No. 09/966926:

Present Invention

Claims 1-7
Claims 12-26
Claim 34
Claim 35
Claims 36-38
Claims 39-44
Claims 45-48
Claim 49

Invention in 09/966926

Claims 1-7
Claim 12-26
Claim 34
Claim 35
Claims 36-38
Claims 39-44
Claims 45-48
Claim 49

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This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory-type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4A. **Claims 1-5, 12-18, 21, 22, 28-33, 34, 36-39, 44, 45 and 47-49** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier 3698497 in view of Avramidis et al 3884097.

Re Claims 1-5, 12-14, 21, 22, 34 and 36-38, Bombardier discloses a snowmobile comprising

frame 12 with engine 10, forward and rear portions (both inherent), pair of skis 13, endless track 16 supporting the rear portion, and, drive train (inherent) with a differential system (unidentified).

The patent does not disclose the drive train as including a differential comprising a planetary gear system, while Avramidis shows this system 20,

The system including first shaft 24 driven by engine 14,

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Three/four planets 152 engaged with sun gear 150, ring gear 154, and clutches 28/60,

second shaft 32 driven by the planets, and driving the track.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this reduction system, as shown in Avradimis, as an alternate reduction means for the drive train, this configuration being well-known in the art, and thus is a proven and popular system.

Re Claims 15-17, Avramidis shows the planets supported by a pair of ring plates 174b/c, the plates including shafts 174d supporting each planet. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this configuration, as shown in Avradimis, to secure the positions of the planets.

Re Claim 18, Bombardier does not specify a drive ratio of 1:3, but this ratio is clearly within the scope of the disclosed drive train.

Re Claims 28-33 (32 as best understood), the patents disclose the recited elements as discussed above, including

Secondary clutch 60 connected with primary clutch 28 via chain 38, as described in Avradimis. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a belt instead of a chain, as an alternate means to connect the clutches, for its decreased weight, and as is well-known in the art.

Re Claims 39, 44, 45 and 47-49, Bombardier discloses a continuously variable transmission (CVT) comprising elements 38+, and Avradimis shows the drivetrain as including

Sprocket 156 driven by the second shaft, and drives the track via chain 158,

The planetary gear system including

input shaft 32 and second shaft 174a,

engine driveshaft 24 driving input shaft 32,

the second shaft driving track shaft 162,

wherein the input shaft and second shaft are coaxial with the engine driveshaft, and,

where there exists gear reduction (via the planets), between 1:1 and 6:1, from the input shaft to the second shaft.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include the planetary gear system, as shown in Avramidis, to effect a reduction system which can drive an endless track, and as is well-known in the art.

4B. Claims 6, 7, 19, 20, 23-26, 35 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier in view of Avramidis, and in further view of Showalter 5833566.

Re Claims 6 and 35, Showalter further shows differential 172 connected with clutch 146 and planetary gear system 80. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this element, as shown in Showalter, so that each track can have a different speed to accomplish turns smoothly.

Re Claim 7, the previous patents do not show a pair of ring bearings supporting the first shaft, while Showalter shows these elements 68 supporting first shaft 62. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include bearings to support either/both shafts for rotation within the drive train, as shown in Showalter, and as is very well-known in the art.

Re Claim 19, Showalter shows first shaft 62 supported by stub shaft 108 and roller bearing 106. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Showalter, to secure the shaft for rotation within a planetary gear system. It is noted that this arrangement is functionally equivalent to that described in Avramidis.

Re Claim 20, Avramidis shows roller bearing 192 supporting the second shaft 174a. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this element to support the shaft for rotation, as is very well-known in the art.

Re Claims 23-26, Showalter further discloses sun gear 90 integrally mounted on the engine driveshaft 62. While the configuration in Avradimis is functionally equivalent, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Showalter, to reduce the size of the drive train, thus improving its efficiency and performance.

Re Claim 46, Avradimis shows gear cage comprising elements 174b/c, for the reasons discussed in the rejection of Claims 15-17 above. Showalter shows weight bearing protrusion 68 supporting sun gear 90 for the reasons discussed in the rejection of Claim 7 above.

4C. **Claims 40 and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier in view of Avramidis and Showalter, and in further view of Illerhaus 6086504.

The previous patents do not show a second shaft driving the CVT, while Illerhaus shows this configuration with

planetary input shaft 9, and second shaft 11, coaxial with engine driveshaft 2, wherein the second shaft drives the CVT comprising elements 12-14.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Illerhaus, to provide a continuous, coaxial driveline through the engine, planetaries and CVT, thus simplifying and streamlining the drivetrain.

4D. **Claims 42 and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier in view of Avramidis, Showalter and Illerhaus, and in further view of Lykken 5924503.

The previous patents do not show the input shaft and second shaft as coaxial with the track shaft, while Lykken exemplifies an offset configuration in Fig 6A. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Lykken, to achieve a drivetrain that is more compact, for different applications.

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5. The prior art made of record, and not relied upon, is pertinent to the Applicant's disclosure, in addition to the art listed on the IDS filed 9/4/01, 2/10/02, 3/6/02: Showalter 5984821, Larkin 5980414, Thiboutot et al 5680715, Barbagli et al 5004060, Ossi 5101919, Tervola 4718508.

6. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at (703) 305-0232, 9-530, M-F. Our fax number is (703) 308-2571. Any inquiry of a general nature, or relating to the status of this application/proceeding, should be directed to Customer Assistance at (703) 306-5771.



Lesley D. Morris
~~Primary Examiner~~

SPE AU 3611

Ms. Lee S. Lum
Examiner
11/05/02

